

**Potash Ridge Announces Results of Economic Impact Analysis for the  
Blawn Mountain Project**

**TORONTO, ONTARIO – November 17, 2014** Potash Ridge Corporation ("Potash Ridge" or the "Corporation") (TSX: PRK; OTCQX: POTRF) today announced the results of an independent economic impact analysis (the "Analysis") for its 100%-owned Blawn Mountain Project (the "Project").

The Analysis, commissioned by Potash Ridge, was completed by Louis Berger, an international professional services company with extensive experience in completing these types of analyses.

The Analysis sets out the anticipated economic benefits of the Project to the State of Utah and the local counties (Beaver County and Iron County) during the expected construction and operation stages. In total, the construction phase of the Project will generate approximately 7,300 jobs in Utah, with about 4,550 of those jobs benefitting the surrounding counties. The total Gross Regional Product ("GRP") will exceed US\$1.1 billion per annum in Utah during the construction phase through direct, indirect and induced impacts.

The Analysis anticipates that subsequent mine and plant operations will generate on average 3,100 jobs per year in Utah during the Project's 40-year mine life, with over half being employed within Beaver and Iron Counties. The GRP in Utah throughout the operations stage is expected to be US\$375 million per annum, with US\$230 million to be generated in the local economy.

Guy Bentinck, President and Chief Executive Officer said, "We are delighted to share the results of this Analysis and highlight the significant economic impact that our Project is expected to have locally and in the state. Additionally, the Project will provide an annual revenue stream for Utah public schools through royalty payments, which will directly benefit current and future generations of school kids in the state. We look forward to building on our strong partnership with the School and Institutional Trust Lands Administration ("SITLA") as we continue to advance our Project."

The results of the Analysis has also solicited expressions of support for the Project from numerous key stakeholders.

Lt. Governor Spencer J. Cox commented, "The partnership between Potash Ridge and SITLA to develop the Blawn Mountain Project is a prime example of why Utah is a great place to do business. Thanks to the vision and leadership of Beaver and Iron County Commissioners, SITLA and others, we have an exciting opportunity before us. This Project will bring a significant number of high paying jobs to rural Utah and other parts of our state. The Governor is very pleased with the progress that has occurred and is encouraged that, with the experience of the Potash Ridge management team in developing large-scale mining projects, we will see this project in full operation."

Kevin S. Carter, Director of SITLA said, "The impact of this Project on behalf of the public education system will be nothing short of tremendous. To put it in perspective, projected annual royalties of US\$28.7 million represent nearly one-fourth of our agency's total earnings currently generated each year from literally thousands of leases and other business transactions. Such projected trust land earnings from a singular lessee is unprecedented."

Beaver County Commissioner, Mark Whitney said, "Potash Ridge's Blawn Mountain Project is a world-class operation. We are very pleased with the achievements made by the Corporation in expediting development of the Project. Blawn Mountain is slated to boost Utah's economy by several billion dollars over the next 40 years and provide large-scale economic development in economically underserved areas in Beaver and Iron County."





Beaver County Commissioner, Mike Dalton commented, "The Blawn Mountain Project has achieved several major permitting milestones since its inception, reflecting the strength of the management team to work in unison with state and local government representatives. Potash Ridge has invested and continues to invest millions of dollars into the Project, which shows their level of commitment."

Iron County Commissioners Adams, Brinkerhoff and Miller commented, "Iron County enthusiastically supports the prospect of Potash Ridge developing the Blawn Mountain Project in neighboring Beaver County. This project has tremendous appeal economically as a primary sector industry that will create thousands of jobs in Beaver and Iron County. We are pleased to see the efforts of Potash Ridge advance this Project and again express our desire to see it succeed."

The Analysis, which is available on Potash Ridge's website, contains forward looking statements and is subject to a number of estimates and assumptions. If any of these assumptions or estimates prove to be incorrect, actual results and developments are likely to differ, and may differ materially, from those expressed above. See "Forward Looking Statements" below for a description of certain material estimates and assumptions.

### **About Potash Ridge**

Potash Ridge is a Canadian based exploration and development company focused on developing a surface alunite deposit in southern Utah called the Blawn Mountain Project. It is expected to produce a premium fertilizer called sulphate of potash ("SOP") and a possible alumina rich material.

Located in Utah, a mining friendly jurisdiction with established infrastructure nearby, the Project is expected to produce an average of 645,000 tons of SOP per annum over a 40-year proven and probable reserve life. A NI 43-101 compliant Prefeasibility Study completed in November 2013 by Norwest Corporation demonstrated that the Project is both technically and economically viable. The Prefeasibility Study, entitled "NI 43-101 Technical Report Resources and Reserves of the Blawn Mountain Project, Beaver County, Utah" dated November 6, 2013 is available on SEDAR.

Potash Ridge has a highly qualified and proven management team with significant financial, project management and operational experience and the proven ability to take projects into production.

### **Forward-Looking Statements**

*This press release contains forward-looking statements, which reflect the Corporation's expectations regarding future growth, results of operations, performance and business prospects. These forward-looking statements may include statements that are predictive in nature, or that depend upon or refer to future events or conditions, and can generally be identified by words such as "may", "will", "expects", "anticipates", "intends", "plans", "believes", "estimates", "guidance" or similar expressions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances are forward-looking statements. These statements are not historical facts but instead represent the Corporation's expectations, estimates and projections regarding future events. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Corporation, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements. Such factors include, but are not limited to: the future financial or operating performance of the Corporation and its subsidiaries and its mineral projects; the anticipated results of exploration activities; the estimation of mineral resources; the realization of mineral resource estimates; capital, development, operating and exploration expenditures; costs and timing of the development of the Corporation's mineral projects; timing of future exploration; requirements for additional capital; climate conditions; government regulation of mining operations; anticipated results of economic and technical studies; environmental matters; receipt of the necessary permits, approvals and licenses in connection with exploration and development activities; appropriation of the necessary water rights and water sources; changes in commodity prices; recruiting and retaining key employees; construction delays; litigation; competition in the mining industry; reclamation expenses; reliability of historical exploration work; reliance on historical information acquired by the Corporation; optimization of technology to be employed by the Corporation; title disputes or claims and other similar matters.*



*If any of the assumptions or estimates made by management prove to be incorrect, actual results and developments are likely to differ, and may differ materially, from those expressed or implied by the forward-looking statements contained herein. Such assumptions include, but are not limited to, the following: that general business, economic, competitive, political and social uncertainties remain favorable; that agriculture fertilizers are expected to be a major driver in increasing yields to address demand for premium produce, such as fruits and vegetables, as well as diversified protein rich diets necessitating grains and other animal feed; that actual results of exploration activities justify further studies and development of the Corporation's mineral projects; that the future prices of minerals remain at levels that justify the exploration and future development and operation of the Corporation's mineral projects; that there is no failure of plant, equipment or processes to operate as anticipated; that accidents, labour disputes and other risks of the mining industry do not occur; that there are no unanticipated delays in obtaining governmental approvals or financing or in the completion of future studies, development or construction activities; that the actual costs of exploration and studies remain within budgeted amounts; that regulatory and legal requirements required for exploration or development activities do not change in any adverse manner; that input cost assumptions do not change in any adverse manner, as well as those factors discussed in the section entitled "Risk Factors" in the Corporation's Annual Information Form (AIF) for the year-ended December 31, 2013 available at [sedar.com](http://sedar.com). The Corporation disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise, except as required by applicable law.*

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# Technical Memorandum: Economic Benefits of the Construction and Operations of the Blawn Mountain Project

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## **1.0 Introduction**

This study evaluates the potential economic and fiscal benefits of the construction and operation of the Blawn Mountain Project (the Project) in Beaver County, Utah. Potash Ridge Corporation (PRC) is planning to construct the Project, a potassium sulfate processing plant and sulfuric acid plant. In addition, PRC will contract with a mine operator to develop the alunite deposit to supply the raw materials for the plants. Additional infrastructure will be developed in support of the mining and processing operations, including a natural gas pipeline, rail facility, water supply and treatment system, wastewater treatment facility, product storage and handling facilities, electric substation, and access roads.

The Project is comprised of 15,404 acres, all located in Beaver County, Utah. The State of Utah surface and mineral tracts are administered by the State of Utah School and Institutional Trust Lands Administration (SITLA). Potash Ridge Corporation (PRC) has rights to the property through state mineral leases administered by SITLA.

## **2.0 Project Location**

The Project is located in the southern Wah Wah Mountains of Beaver County, Utah about 180 air miles south-southwest of Salt Lake City. The property is situated west-southwest of Milford (30 air miles to the northeast) and west-northwest of Cedar City (55 air miles to the southeast) and 30 air miles from the Nevada state border. The Project area can be accessed from Interstate 15 and State Route 21 and is about 20 air miles west of a Union Pacific Railroad route.

## **3.0 Study Area**

The Project is located in a rural area of Beaver County in south-central Utah. The towns of Milford, Minersville and Beaver in Beaver County are closest to the project site. The next closest community to the project site is Cedar City, which is located in Iron County. The workforce and construction services will be sourced primarily from both Beaver and Iron counties. As a result, the study area used for this analysis associated with the Project is defined as the two-county region. In addition, the study also evaluated the economic benefits to the state of Utah.

## **4.0 Socioeconomic Characteristics of the Study Area**

The following section describes the current socioeconomic conditions in the two-county study area and the state in order to provide context on the economic contribution of the mine and processing facilities. This includes a description of population, labor force, average earnings, employment, and unemployment rates.



## 4.1 Population

Populations of the counties, state, and larger cities and towns in the two-county region are summarized in Table 1 (U.S. Census 2000 and 2012). Beaver County and its largest communities Beaver City and Milford City have experienced modest population growth over the last twelve years. The largest city in the two-county region is Cedar City with a 2012 population of 28,720 and has also experienced population growth between 2000 and 2012. Cedar City has been growing on average approximately 5.6 percent per year since 2000, while Beaver City and Milford City have grown at a rate of 2.1 and 1.3 percent per year, respectively. Table 1 summarizes population figures for 2000 and 2012.

**Table 1. Population in the Study Area and State, 2000 and 2012**

Geography	2000 Population	2012 Population	Percent Change 2000-2012	Average Annual Population Growth
Beaver County	6,005	6,527	8.7%	0.7%
Beaver City	2,454	3,059	24.7%	2.1%
Milford City	1,451	1,679	15.7%	1.3%
Iron County, Utah	33,779	45,984	39.9%	3.3%
Cedar City	20,527	28,720	66.6%	5.6%
Enoch City	3,467	5,777	9.3%	0.8%
Parowan City	2,565	2,803	23.9%	2.0%
<b>Utah</b>	2,233,169	2,766,233	36.1%	3.0%

Source: U.S. Census 2000 and 2012

The study area has higher unemployment rates than experienced across Utah as a whole. Average annual wages (does not include benefits and fringe) in the study area range from \$28,000 to \$34,000; average wages in Utah are \$41,000. In Beaver and Iron counties, construction employment is 827, accounting for 3.8 percent of the total employed workforce. Mining employment is 293, accounting for 1.4 percent of the total employment in the two-county region. Table 2 summarizes the labor force, unemployment rates, average annual wages, and industry employment in the study area and for Utah.



**Table 2. Labor Force and Employment in the Study Area and State, 2013**

Geography	Labor Force	Employment	Percent Un-employed	Average Annual Wages	Construction Employment	Mining Employment	Construction Percent of Total Employed	Mining Percent of Total Employed
Beaver County	3,387	3,248	4.1%	\$33,960	153	193	4.7%	5.9%
Iron County, Utah	19,468	18,411	5.4%	\$28,474	674	100	3.7%	0.5%
2-County Study Area	22,855	21,659	5.2%	\$29,187	827	293	3.8%	1.4%
<b>Utah</b>	<b>1,418,522</b>	<b>1,355,720</b>	<b>4.4%</b>	<b>\$41,064</b>	<b>74,633</b>	<b>12,108</b>	<b>5.5%</b>	<b>0.9%</b>

Source: Utah Department of Workforce Services 2013a; 2013b.

## 5.0 Methodology

This section outlines the methodology used to estimate the potential economic benefits of the construction and operation of the Blawn Mountain Project. This includes a discussion of how IMpact PLANning (IMPLAN) was customized and used to estimate changes in employment, income, sales and Gross Regional Product<sup>1</sup> in both the study area and Utah.

### 5.1 IMPLAN

This analysis used the IMPLAN software and data system to estimate the economic benefits of the construction and operations of the Project. IMPLAN Professional customizes regional input-output (IO) models to provide estimates of economic output (sales), employment, income, and gross regional product effects in a specified location. IMPLAN is a widely-used government and industry-standard approach to estimate economic impacts for many types of issues. The IO models systematically describe production and consumption sectors within a particular economy through a series of linkages among industries, households, and government. Changes to purchases of goods and services for final consumption (final demand change) drive IO models; in this case, the final demand changes are the capital investments, construction, and operation of the Project. Each industry that produces goods and services generates demands for other goods and services. For example, when construction firms pay their workers (e.g., electricians and plumbers) and purchase supplies or services (e.g., lumber and concrete), additional economic activity is generated in the local or regional economy through jobs, income, and associated household spending. Multipliers are used to describe these iterations. IMPLAN

<sup>1</sup> Gross Regional Product is defined as the market value of final goods and service produced within a specific region (county) for a specified time period (one year).



Version 3.0 has the capability to analyze 440 industry sectors, providing a detailed examination of the economic effects on specific industries.

IMPLAN allows users to estimate direct and secondary (i.e., multiplier) effects. The secondary effects include both indirect and induced effects. The types of effects are defined as follows:

- Direct effect - in the impact area in which a project or economic activity is located represents that proportion of the spending or sales in each industry that flows to material and service providers in the impact area. Employment and economic benefits for the direct industries would include jobs and income supporting the construction or operations of the processing plant, the mining operation, sulfuric acid plant, and other support facilities.
- Indirect Effect - includes the backward-linked industry suppliers for goods and services that support the directly affected industries. For example, if construction activity is the direct effect, indirect business supporting construction would include lumber suppliers, trucking, steel manufacturers, among others; these are considered backward-linked industries supporting the construction activity.
- Induced Effect - occurs from household expenditures or consumer spending associated with the direct and indirect workers spending their earnings within the region. This additional spending supports businesses and industries within the regional economy generating sales, jobs, labor income, and gross regional product.

## **5.2 Economic Benefits of the Construction and Other Capital Investments**

Capital costs for the Project including third party build, own, operate package costs are estimated to be \$1.8 billion over two and a half years. The general types of costs are summarized in Table 3. Since the study area is rural with limited construction services and suppliers, much of the labor, equipment, and materials are assumed to be sourced from outside of the two-county region. Louis Berger met with PRC representatives, including the project manager, engineering, financial, and tax experts regarding the sourcing of the labor, materials, and equipment for the Project. The various costs were then mapped to the relevant IMPLAN sectors to estimate the economic benefits. The two-county and state IMPLAN models were customized to account for these sourcing, industry, and labor assumptions. The model assumptions listed in tables 3 and 4 are discussed in more detail below.



**Table 3. Project Capital Costs**

<b>Types</b>	<b>Cost (\$Millions) (2013 Dollars)</b>	<b>Model Assumptions</b>
<b>Internal Capital Costs</b>		
Project Infrastructure	\$90	General Construction Support
Processing Plant (includes direct and indirect costs, does not include the Acid Plant) <sup>1</sup>	\$944	See Table 4
Product Handling and Storage	\$30	General Construction Support
Contingency	\$50	General Construction Support
<b>Capital Costs Sub-Total</b>	<b>\$1,114</b>	-
<b>Third Party Costs</b>		
Access Road	\$53	Local Construction Support
Rail Spur and Loop	\$76	General Construction Support
Natural Gas Pipeline	\$83	General Construction Support
Sulfuric Acid Plant	\$280	Specialized Construction Support
Mine Development	\$89	See Table 4
Water Supply and Treatment System	\$60	General Construction Support
<b>Third Party Costs Sub- Total</b>	<b>\$641</b>	-
<b>Total Capital Costs</b>	<b>\$1,755</b>	-

Source: Technical Report, Resources and Reserves of the Blawn Mountain Project (Norwest Corporation 2013); Potash Ridge Corporation 2014

<sup>1</sup> The costs of the processing plant is slightly less than reported \$954 million in the Technical Report, Resources and Reserves of the Blawn Mountain Project (Norwest Corporation, 2013) because the flow sheet adjustment was not included in the figures, resulting in a slightly lower total capital cost.

Additional detail on the equipment, materials, and labor costs was available for the processing plant and the mine development and is summarized in Table 4.



**Table 4. Project Capital Costs for Processing Plant and Mine Investment**

Types	Cost (\$Millions) (2013 Dollars)	Model Assumptions
<b><i>Processing Plant</i></b>		
Mechanical Equipment, including Auxiliary Services (types are listed)	\$617	Purchased and Fabricated Equipment
Installation of Mechanical Equipment	\$24	Installation Labor
Piping	\$24	Fabricated Pipe
Structural Steel	\$24	Plate Work and Fabricated Steel
Concrete and Foundations	\$14	Local Construction Support
Architectural buildings	\$11	General Construction Support
Electrical	\$39	Electrical and Instrumentation Equipment
Instrumentation	\$9	Electrical and Instrumentation Equipment
Excavation and Site Prep	\$15	Local Construction Support
Painting and Insulation	\$7	General Construction Support
<b><i>Indirect Costs</i></b>		
Engineering	\$49	Architecture and Engineering
Construction Management and Procurement	\$16	General Construction Support
Construction-related cost	\$72	General Construction Support
Freight <sup>1</sup>	\$20	Allocated to Equipment Costs
<b><i>Mine Investment</i></b>		
Equipment	\$65	General Construction Support
Mine Development	\$16	Mining Support
Mine Facilities	\$9	General Construction Support

Source: Technical Report, Resources and Reserves of the Blawn Mountain Project (Norwest Corporation, 2013)

<sup>1</sup> Freight Costs have been allocated to the equipment in the model and not directly modeled in IMPLAN. Sales tax estimates were excluded from the economic analysis.

#### ***Local Construction Support***

Costs to develop the access road, excavation and prepare the site, and for concrete and foundation contractors were assumed to be locally provided within the two-county region. These costs were mapped to general construction sectors. The direct labor was assumed to occur on the project location. In addition, the induced and indirect impacts were assumed to accrue to the local two-county region. These assumptions were also applied to the state IMPLAN model.



#### *General Construction Support*

The capital investments for construction management, buildings, mine facilities, water supply and treatment system, and project infrastructure were allocated to the various relevant construction sectors in the IMPLAN model. These construction activities were assumed to occur at the Project location. Companies providing these services and workforce were not assumed to be from the local region and their workforce was assumed to be temporary in nature for the duration of the work. As a result, all indirect impacts were removed from the estimate and induced impacts were reduced by half. However, the construction companies providing these services were assumed to be from the Salt Lake City area or elsewhere in the state, and as a result, all direct, indirect, and induced impacts were included in the state estimate.

#### *Specialized Construction Support*

The construction of the sulfuric acid plant was provided as a lump sum cost estimate and construction would require specialized labor skills, equipment and materials. Although specific details of the types of equipment and materials were not available in the lump sum estimate, it was known that equipment will primarily be purchased from out-of-state vendors. The acid plant capital costs were therefore applied to IMPLAN Sector 36, Construction of Other Non-residential Structures. The indirect impacts were removed from both the two-county and state models. For the two-county model, half of the induced impacts were assumed to accrue to the region, while 70 percent were assumed to be captured within the state.

#### *Purchased and Fabricated Equipment*

The mechanical equipment needed for the processing plant was identified from the equipment list, which was used to inform the equipment costs for the financial model. PRC engineering and financial representatives grouped the types of equipment into fabricated metal equipment and items that would likely be purchased from vendors located outside the state. Purchased items were then allocated to the appropriate manufacturing sector in IMPLAN. The analysis used margins and the sourcing assumptions provided by the IMPLAN trade flows model. Most of this equipment would be purchased from vendors outside the state and therefore, most of the costs were not captured within the two-county or the state model. The fabricated equipment, such as buffer bins, conveyers, chutes, and thickeners, were allocated to the appropriate fabricated equipment sector. IMPLAN's trade flows estimates were used for the sourcing assumptions. In general, no equipment was captured within the two-county model, and a portion of the costs was captured in the state model.

#### *Installation Labor*

Labor to install the mechanical equipment for the processing plant was applied to the employee compensation in IMPLAN and was assumed to all occur at the site location. All of the direct impacts were captured in the two-county and state models. This labor was assumed to be temporary in nature and therefore only half of the induced impacts were captured in the two-county region and 70 percent were captured in the state model. Employee compensation does not include indirect impact estimates.



#### *Fabricated Pipe and Steel*

Piping and steel building materials would be purchased from fabricators or manufacturers. The appropriate sector in IMPLAN was used to estimate these economic benefits. IMPLAN's trade flows estimates were used for the sourcing assumptions. In general, this equipment was not captured within the two-county model, and a portion of the costs was captured in the state model.

#### *Electrical and Instrumentation Equipment*

Electrical equipment and instruments would be purchased from fabricators or manufacturers. The appropriate sector in IMPLAN was used to estimate these economic benefits. IMPLAN's trade flows estimates were used for the sourcing assumptions. In general, this equipment was not captured within the two-county model, and a small portion of the costs was captured in the state model.

#### *Architectural and Engineering*

Engineering cost estimates were run through IMPLAN Sector 369, Architectural, Engineering, and Related Services. PRC representatives estimated that approximately 30 percent of the engineering cost would remain in Utah and be captured by Utah companies. No engineering services would originate in the two-county region.

#### *Mining Support*

Development of the mine is expected to be supported by companies located within Utah. IMPLAN's trade flows data indicated that 94 percent of this cost would be allocated within the state. IMPLAN's trade flows estimates were used for the sourcing assumptions. No mine development costs were allocated in the two-county region. However, equipment and construction of mine facilities were allocated to the two-county region as described above under construction.

### **5.3 Economic Benefits of Blawn Mountain Project Operations**

The direct effect for the input into the economic impact models for the operations of the plant and mine is gross revenues or the value of production. PRC estimates that average annual gross revenue from the sale of potassium sulfate (\$419M) and sulfuric acid (\$194M) would be \$613 million in 2013 dollars. Potassium sulfate and sulfuric acid manufacturing falls in IMPLAN Sector 125, All Other Basic Inorganic Chemical Manufacturing. The gross revenues (less the costs of operating the mine – see below) were run through IMPLAN sector 125. IMPLAN Sector 125 was customized to remove the mining intermediate input as this impact was assessed through a separate analysis. In addition, Sector 125 economic output, employment, and other value added ratios were adjusted in IMPLAN to reflect the economic conditions (i.e., employment, economic output) of the processing plant.

Alumina is a third potential product that can be produced from the Project. Because additional analysis and research needed to determine if the production of alumina is economically feasible, potential revenue from the alumina rich material was not included in this analysis. This potential will be explored as part of the Feasibility Study for the Project.



PRC plans to pay the mine contractor \$42.4 million on an annual basis to operate the mine. IMPLAN Sector 27, Other Nonmetallic Mineral Mining and Quarrying, was used to estimate the economic benefits of this activity. Because this sector does not currently exist in the regional IMPLAN model for the two-county study area, modifications were made to the model by adding ratios from the national industry averages and production functions, in order to account for this economic activity. The Other Nonmetallic Mineral Mining and Quarrying sector was customized in IMPLAN to reflect employment and revenues estimates of the mining operation, as described in the *Technical Report, Resources and Reserves of Blawn Mountain Project* (Norwest Corporation, 2013).

## 5.4 Fiscal Benefits

Fiscal benefits associated with the construction and operation of the processing plant was provided in the *Technical Report, Resources and Reserves of the Blawn Mountain Project* (Norwest Corporation, 2013). This report provides descriptions of the calculations for the following tax categories:

- sales taxes associated with the purchase of materials and equipment for the processing plant capital investments
- property taxes
- corporate income taxes
- royalties, lease payments, and bonus payments (Norwest Corporation, 2013).

In addition, Louis Berger estimated the following taxes, which are further described below:

- sales tax receipts associated with materials and equipment purchases associated with the capital costs, excluding the processing plant;
- sales taxes generated from the construction workers and other indirect and induced workers spending a portion of their wages within Utah;
- annual sales taxes from the operations of the facility from the workforce and other indirect and induced workers spending a portion of their wages within Utah.

Consistent with the *Technical Report, Resources and Reserves of the Blawn Mountain Project* (Norwest Corporation, 2013), the Utah sales tax rate of 5.95 percent was applied to 30 percent of the capital costs, excluding the processing plant (and excluding engineering and construction management costs), which included construction of the mine, water supply and treatment facility, Project infrastructure, storage buildings, access roads, pipeline, and rail spurs. Since most of the equipment for the acid plant is specialty equipment, it was excluded in the sales tax estimate. Based on the assumptions for the processing plant, it was assumed that 60.6 percent of the remaining construction costs, which did not include engineering and construction management costs, was \$321.8 million. Thirty percent of \$321.8 million, or \$96.5 million was assumed to be subject to sales tax, to which the state and county sales tax rate of 5.95 percent was then applied (Norwest Corporation, 2013).

In addition, construction workers as well as other indirect and induced workers spend their money on retail and other taxable goods, contributing to additional sales taxes. IMPLAN was used to estimate the



spending that would occur on various sales-taxable sectors associated with the labor income supported by the construction activity. Industry sectors that generally generate tax revenue include retail, food and beverage, accommodations, recreation industries, and various types of services. A similar method was used to estimate the sales taxes generated from operations workers spending in Utah.

## **6.0 Results**

This section summarizes the results of the economic benefit analysis for two phases of the project: construction and operation. The methodology used to analyze benefits is discussed in detail in Section 5.0.

### **6.1 Economic Benefits of Construction and Capital Investments**

Construction of the processing plant, sulfuric acid plant, mine, other support facilities and infrastructure, and other indirect construction costs, such as engineering and construction management, is expected to occur over two and a half years. The capital investments of \$1.8 billion are expected to support 4,546 average annual jobs during the two and a half year period. In addition, \$305 million in labor income, \$344 million in gross regional product, and \$1.1 billion in sales would be generated in the two-county region over the construction period. The construction workforce will likely be temporary in nature, coming from the Salt Lake City region as well as outside the state. Very little indirect impacts would accrue to the region from the construction activity as most of the businesses and materials would come from outside the local area.

Within Utah, the construction of the project is expected to support 7,313 average annual jobs. In addition, construction would support \$869 million in labor income, \$1.1 billion in gross state product, and \$2.3 billion in sales for the duration of the construction activity. Table 5 summarizes the economic benefits of the construction activity to the two-county study area and the state.



**Table 5. Construction and Capital Investments Economic Benefits (2013\$)**

Economic Impact Type	Average Annual Jobs	Total Labor Income (\$M)	Total Gross Regional Product (\$M)	Total Sales (\$M)
<b>Two-county Region</b>				
Direct Impacts	4,142	\$279.3	\$289.4	\$981.6
Indirect Impacts	57	\$3.8	\$6.4	\$13.6
Induced Impacts	347	\$21.9	\$47.8	\$83.0
Total	4,546	\$305.1	\$343.6	\$1,078.1
<b>Utah</b>				
Direct Impacts	4,287	\$541.7	\$612.6	\$1,286.0
Indirect Impacts	1,106	\$140.4	\$208.6	\$398.0
Induced Impacts	1,920	\$186.9	\$325.9	\$567.5
Total	7,313	\$869.0	\$1,147.1	\$2,251.5

Source: IMPLAN 2012 - Beaver and Iron counties and State of Utah.

Note: Values are in 2013 dollars. Jobs include both full-time and part-time positions.

## 6.2 Economic Benefits of Mine and Processing Plant Operations

It is expected that the Project will generate on average \$613 million in gross revenues from the sale of potassium sulfate and sulfuric acid. The operation of the mine and processing and support facilities would support, on average, 1,576 total annual jobs in the two-county region in addition to \$90.4 million in labor income, \$230 million in gross regional product and \$745.1 million in sales, annually, over the life of the Project. These benefits are expected to occur once the Project reaches full production and continue over the 40-year life of the mine.

In the state, 3,095 total average annual jobs are expected to be supported by Project operations. In addition, the operations are expected to support \$188 million in labor income, \$375 million in gross state product, and \$1.0 billion in sales annually. Operations of the mine, processing plant, and support facilities generates a considerable multiplier effect. In the two-county region, for every job employed by the mine or processing plant, an additional 2 jobs are created or retained in the local region. In the state, there is a larger multiplier effect as the economy of the state captures additional economic activity; for every job employed by the mine or processing plant, an additional 5 jobs are created or retained in the state. Table 6 summarizes the annual economic benefits of the operations of the Project.



**Table 6. Average Annual Economic Benefits of Project Operations (2013\$)**

Economic Impact Type	Jobs	Labor Income (\$M)	Gross Regional Product (\$M)	Sales (\$M)
<b><i>Two-county Region</i></b>				
Direct Impacts	508	\$60.3	\$160.9	\$613.0
Indirect Impacts	740	\$21.8	\$51.5	\$100.8
Induced Impacts	328	\$8.3	\$18.0	\$31.3
Total	1,576	\$90.4	\$230.4	\$745.1
<b><i>Utah</i></b>				
Direct Impacts	508	\$62.3	\$153.2	\$613.0
Indirect Impacts	1,532	\$84.7	\$149.8	\$279.7
Induced Impacts	1,055	\$41.1	\$71.6	\$124.7
Total	3,095	\$188.1	\$374.6	\$1,017.4

Source: IMPLAN 2012 - Beaver and Iron counties and State of Utah.

Note: Values are in 2013 dollars. Jobs include both full-time and part-time positions.

### 6.3 Fiscal Benefits of the Construction and Operations of the Blawn Mountain Project

The mine and processing plant will support state and local governments through taxes and royalties associated with the development and capital investments as well as through the continued operations of the Project. The taxes and royalties are summarized in Table 7 and described below.



**Table 7. Taxes and Royalty Estimates**

<b>Tax Estimates</b>	<b>Tax or Royalties (\$Millions) (2013 Dollars)</b>
<b><i>Construction</i></b>	
Sales Tax from Purchases of Materials and Equipment (State and County)	\$11.5
Sales Tax Generated from Worker Spending (State and County)	\$8.3
Total Sales Tax Receipts During 2.5 Year Construction Period	\$19.8
<b><i>One-Time Bonus Payments (State)</i></b>	<b>\$1.2</b>
<b><i>Operations over Life of Mine</i></b>	
Average Annual Property Taxes (County)	\$7.3
Average Annual Corporate Income Taxes (State and Federal)	\$53.0
State	\$6.9
Federal	\$46.1
Average Annual Royalties and Lease Payments (State)	\$28.7
Average Annual Sales Tax (State and County)	\$1.8
Total State and County Average Annual Taxes	\$44.8

Source: Technical Report, Resources and Reserves of the Blawn Mountain Project (Norwest Corporation, 2013); Louis Berger analysis.

#### *Sales Taxes on Capital and Construction Costs*

An estimated \$5.8 million in sales taxes would be paid to the state with the purchase of materials, supplies, and equipment from Utah associated with the construction of the processing plant (Norwest Corporation, 2013). The Utah sales tax rate of 5.95 percent was applied to 30 percent of the capital costs of the processing plant, excluding costs for engineering and construction management. The costs for this sales tax estimate excluded the calciner, which is a large cost and likely to be purchased from a vendor located outside the state. In addition, construction of the mine, water supply and treatment facility, project infrastructure, storage buildings, access roads, pipeline, and rail spurs would all require the purchase of equipment and materials, generating sales tax receipts for the State. Since most of the equipment for the acid plant would be purchased from vendors located outside the state, it was not included in the sales tax estimate. Based on the assumptions for the processing plant, it was assumed that 60.6 percent of the remaining construction costs (\$531 million) were capital costs exclusive of costs for engineering and construction management. Thirty percent of these capital costs were then assumed to be subject to sales tax, to which the 5.95 percent state and county sales tax rate was applied, resulting in \$5.7 million in sales taxes. When aggregated, \$5.7 million and \$5.8 million result in a total of \$11.5 million in sales tax receipts associated with the purchase of materials and equipment for the construction activity.



In addition, construction workers as well as other indirect and induced workers spend their money on retail and other taxable goods, generating additional sales tax receipts. An estimated \$189.8 million (of the total \$869 million in total labor income for the construction activity) would be spent on taxable industries, to which 5.95 percent was applied, resulting in \$8.3 million in taxes generated from wage and income spending associated with the construction activity. These taxes would accrue for the duration of the construction activity.

#### *Property Taxes*

Property taxes for the Project would be centrally assessed and collected annually by Beaver County. The valuation of the properties would be undertaken using the centrally assessed property rules provided by the Property Tax Division of the Utah State Tax Commission. It is anticipated that \$7.3 million in annual property taxes, on average, would be collected, resulting in approximately \$300 million in property taxes collected over the life of the project (Norwest Corporation, 2013).

Beaver County charged \$10.5 million in property taxes for both locally and centrally assessed properties in fiscal year 2012 (Utah State Tax Commission 2014). These taxes primarily support school districts, as well as special districts (i.e., fire, ambulance, etc.), and city, town, and county budgets. The Project's contribution to Beaver County property taxes would increase these taxes by 70 percent.

#### *Corporate Income Taxes*

Corporate income taxes in Utah are collected on corporate earnings. Individual income taxes and corporate franchise and income taxes in Utah, as specified in the Utah Constitution, are used strictly to fund public and higher education (Utah State Tax Commission 2014). A blended rate of 38.25 percent was used to estimate both federal and state corporate tax receipts from the Project, including the effect of the Alternative Minimum Tax provisions (Norwest Corporation, 2013). An estimated \$53 million in average annual corporate income taxes would be paid to the state and the federal government. As the State of Utah's income tax rate on corporations is 5 percent of net income, approximately \$7 million of this total would be paid to the state of Utah while the remaining \$46 million would be paid to the Federal government annually. Over the 40-year life of the Project, \$2.2 billion in income taxes would be paid to the State and the federal government over the life of the project (Norwest Corporation, 2013).

#### *Royalties, Lease Payments, and Bonuses*

Initially, PRC gained access to the property through a Metalliferous Minerals and Potash Exploration Agreement and Option to Lease. Following extensive resource definition work under the Exploration with Option to Lease Agreement, and satisfying State of Utah School and Institutional Trust Lands Administration conditions and payment schedule, PRC now holds three metalliferous minerals leases to develop the property.

The primary term of the lease will be for 10 years with a provision to extend at 5-year intervals after primary term provided the lessee is either in production of leased minerals or in diligent development of



leased minerals. Royalties are also paid to SITLA and are based on the lease agreement between the State and PRC, which provides for a royalty of 5% and 4% to be paid on the selling price for sulfate of potash and sulfuric acid, respectively. It was estimated that \$28.7 million in average annual royalties would be paid to Utah during the period of operation of the mine (Norwest Corporation, 2013), resulting in \$1.1 billion over the 40-year life of the project.

#### *Sales Taxes*

The operation of the Project would also contribute to sales and use tax receipts for the State and county. The mine and plant workforce as well as other indirect and induced workers spend their money on retail and other taxable goods, generating additional sales tax receipts. An estimated \$30.0 million (of the total \$188.1 million in total labor income for the annual operational activity) would be spent on taxable industries, to which a 5.95 percent was applied, resulting in \$1.8 million in annual sales taxes generated from wage and income spending associated with the operations of the mine and plant. These taxes would accrue over the life of the Project.



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